

CLAIMS:

1. An integrated circuit (5) for a data carrier (1), which integrated circuit (5) comprises the following means:

a first terminal (6) and a second terminal (7), wherein the two terminals (6, 7) are provided for connection with transmission means (2) of the data carrier (1), and

5 an ESD protection circuit (8), which is connected between the two terminals (6, 7) and which comprises a series connection (9) consisting of a first protection diode (10) and a protection stage (11), which protection stage (11) may be brought from a blocking state into a conductive state by exceeding a voltage threshold, and which comprises a second protection diode (12) connected in parallel with the series connection (9) and in opposition to
10 the first protection diode (10) of the series connection (9), and

a rectifier circuit (13), which is connected to the ESD protection circuit (8) and comprises a rectifier diode connected in parallel with the ESD protection circuit (8),

wherein the rectifier diode of the rectifier circuit (13) takes the form of a Schottky diode (21) with a parasitic p/n junction (26) and wherein the Schottky diode (21)
15 with the parasitic p/n junction (26) forms the second protection diode of the ESD protection circuit (8).

2. An integrated circuit (5) as claimed in claim 1, wherein the rectifier circuit (13) takes the form of a voltage doubler circuit.

20 3. A data carrier (1) for contactless communication with a communications station, which data carrier (1) comprises transmission means (2) and an integrated circuit (5) connected with the transmission means (2), which integrated circuit (5) comprises the following means:

25 a first terminal (6) and a second terminal (7), wherein the two terminals (6, 7) are connected with the transmission means (2), and

an ESD protection circuit (8), which is connected between the two terminals (6, 7) and which comprises a series connection (9) consisting of a first protection diode (10) and a protection stage (11), which protection stage (11) may be brought from a blocking state

into a conductive state by exceeding a voltage threshold, and which comprises a second protection diode (12) connected in parallel with the series connection (9) and in opposition to the first protection diode (10) of the series connection (9), and

5 a rectifier circuit (13), which is connected to the ESD protection circuit (8) and comprises a rectifier diode connected in parallel with the ESD protection circuit (8), wherein the rectifier diode of the rectifier circuit (13) takes the form of a Schottky diode (21) with a parasitic p/n junction (26) and wherein the Schottky diode (21) with the parasitic p/n junction (26) forms the second protection diode of the ESD protection circuit (8).

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4. A data carrier (1) as claimed in claim 3, wherein the rectifier circuit (13) takes the form of a voltage doubler circuit.